Installation guide
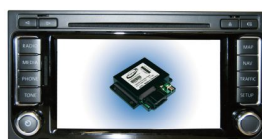# Multimedia Adapter

guided setup*

Touchscreen operation**

Multimedia Adapter

Basic Plus - 35538

control version

Multimedia Adapter

Basic - 35537

without control

wiring - article-ID 35658
wiring - article-ID 35951***

wiring - article-ID 35542

wiring - article-ID 35543

wiring - article-ID 35579

Control lines have to be ordered separatly   depending on the device you want to control.

wiring - article-ID 35543

wiring - article-ID 35544
wiring - article-ID 35951***

wiring - article-ID 35546

Audi head unit RNS-E, RNS-D
Volkswagen head unit MFD, MFD 2, RNS 2, RNS 510
Mercedes head unit Comand 2.0, 2.5

* Depending on equipment (FIS)
** Only for head unit RNS 510
*** In case of factory fitted rear view camera

www.kufatec.de

Content

safety Instructions

Congratulations to your new
Multimedia Adapter. Thank you for choosing
a product of Kufatec GmbH.

Please take note that the installation can only be done by vehicles which are using a 12V battery. In particular trucks, all-terrain vehicles and commercial diesel cars including taxis are running often with 24V batteries and an installationis not possible in these kind of vehicles.

Take care to ensure no devices are affected or damaged that are relevant to security or safe operation of the vehicle.

This unit is only for use in the following vehicles. Only connections described within this instruction guide are allowed or required to use for installation.

For damage impact caused by faulty installation, unsuitable connections inappropriate vehicles Kufatec GmbH assumes no liability.

We advise you that these units process datas out of the CAN - protocol from the vehicle. As the supplier of this device we don't know the overall system you are working with. If our device causes damage due to other changes made by to the vehicle Kufatec GmbH assumes no liability.

If the car manufaturer's don't agree with the installation of our device by reason of warranty the Kufatec GmbH assumes no liability. Please check conditions and warranty before you begin the installation.

Kufatec GmbH supplier reserves the right to change the device specifications without notice.

Connection diagram

Note VW RNS 510:   • Not suitable for two devices.
                          • „device 1" operation only available for DVB-T Receivers (subject to change)

Navigation unit

specific connection
see page 5 - 9

add on RVC

Ground
Zündlogik
Plus   10 A

Ground
Zündlogik
Plus   10 A

Adapter

Cinch

Yellow

Cinch Red
Cinch White
IR

Rear view cam

device 1

Power Supply

IR   Input   Output

Yellow   White   Red

Yellow   White   Red

Y-Adapter

Y-Adapter

Yellow
White
Red

Power Supply   Output

device 2

IR

Y-Adapter

IR DVD   IR DVB-T
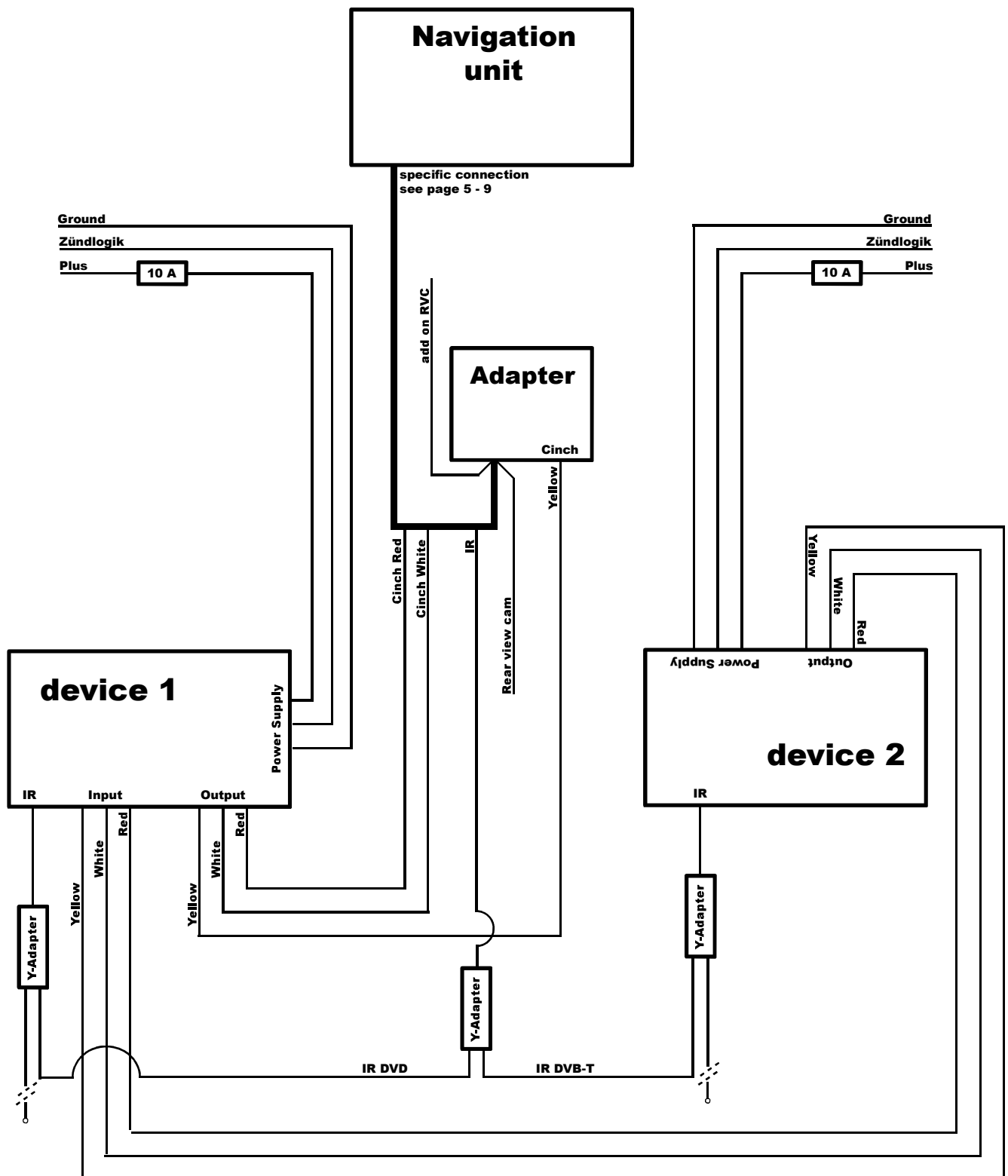
Specifications

Technical details Multimedia Adapter

power supply	-	12 Volt (10 - 15 Volts)
power input	-	170 - 190 mA
standby current	-	4 - 6 mA
dimensions in mm	-	99 x 96,5 x 23
weight	-	100 g
video signals	-	PAL / NTSC
RVC signal	-	NTSC

Specifications

99

cover

circuit board

67

21,5

connection
18-pole

8

68

Title: Multimedia Adapter

June 2007

page 1/1
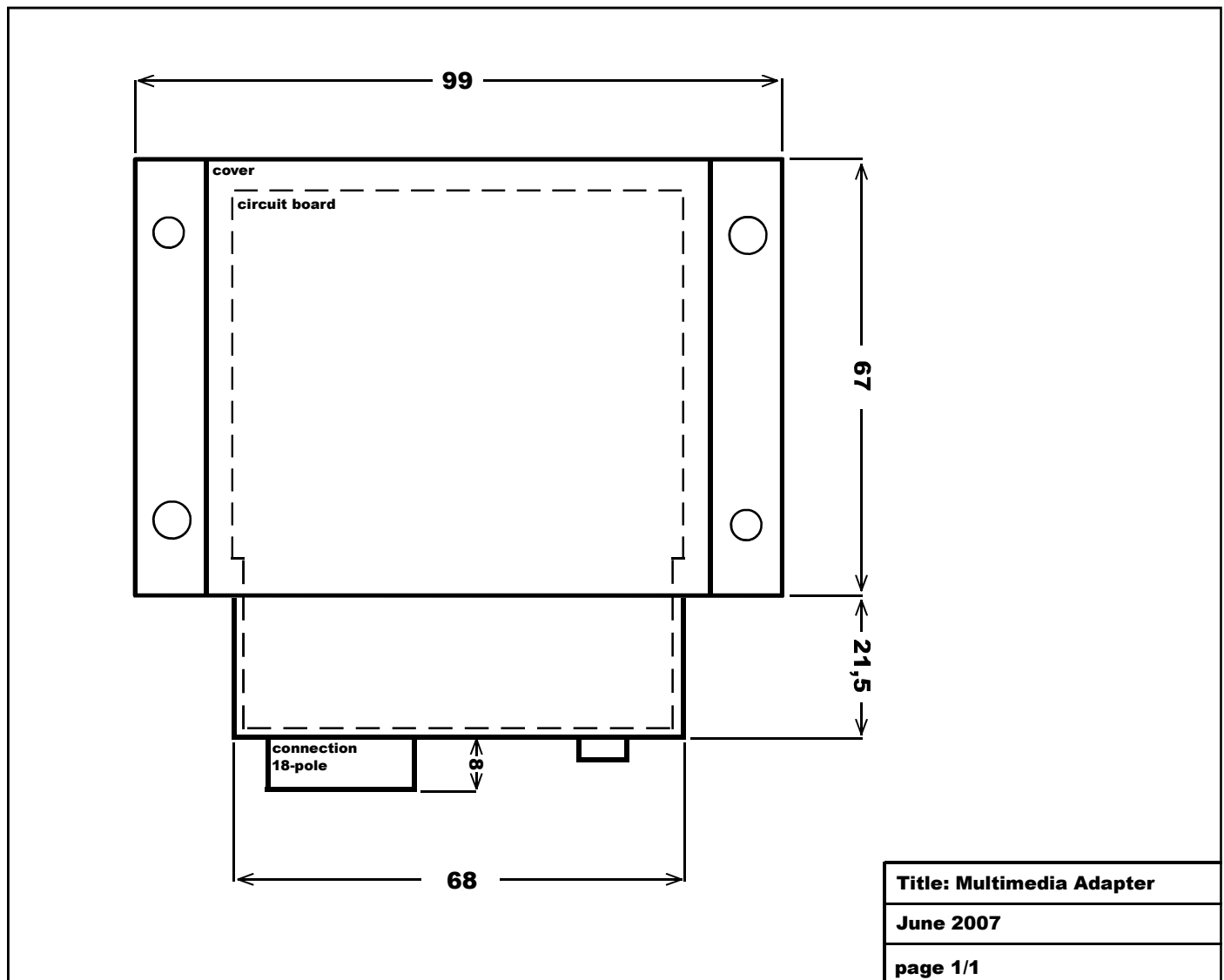
Control lines specific to devices

In order to control the multimedia devices by OEM Navigation you need to have a specific control line which has to be connected between the main wiring and the multimedia device (DVD, DVB-T ...)

device	version control line	article-ID
DVD Player MP410U	jack 3,5 version 1	35550
DVD Player MP412U	jack 3,5 version 1	35550
DVD Player AIV	jack 3,5 version 1	35550
DVD Player Ampire DVX 50/ 100	jack 3,5 version 1	35550
DVD Player Bullit CDVD12	jack 3,5 version 1	35550
DVD Player JD2605	jack 3,5 version 1	35550
DVD Player 500 U	jack 3,5 version 1	35550
DVD Player BOSS 2500/ BV2600UA	jack 3,5 version 2	35552
DVD Changer 6-fach DVC62	jack 3,5 version 2	35552
DVD Changer 10-fach DVC10	jack 3,5 version 2	35552
DVD Player Roadstar 3202XUS	jack 3,5 version 2	35552
Alpine video interface KCE 425i	jack 3,5 version 2	35552
DVD Changer 6-fach Alpine DHA - S690	jack 2,5 version 2	35613
DVD Player Alpine DVE 5207	jack 2,5 version 2	35613
DVD Player DVD145	jack 3,5 version 2	35552
DVD Player Yamakawa MP28	jack 3,5 version 2	35552
DVD Player Directed Video DV 2602	jack 3,5 version 2	35552
USB Player Zemex	jack 3,5 version 2	35552
DVD Player Zemex MP20U	jack 3,5 version 2	35552
DVB-T Receiver Ampire100SL	jack 3,5 version 4	35602
DVB-T Receiver Ampire DVBT 400-2G/3G	Westernstecker version 7	35549-1
DVB-T Receiver CKO 1080	Westernstecker version 1	35549
DVB-T Receiver Bullit DVB-T	Westernstecker version 1	35549
DVB-T Receiver Ampire DVBT200/ 400-1G	Westernstecker version 1	35549
DVB-T Receiver Alpine TUE T150DV	jack 2,5 version 1	35547
USB Video Interface Alpine KCE-635UB	jack 2,5 version 1	35547
DVB-T Receiver Alpine TUE T-252TX	jack 2,5 version 1	35547
DVB-T Receiver Alpine TUE T200	S-Video connector	36247
DVB-T Receiver Hirschmann DVBT 2.0	S-Video connector	36247
DVB-T Receiver Eastern SE863-T	Westernstecker version 2	35553
DVB-T Receiver Dietz 1491	Westernstecker version 2	35553
DVB-T Receiver DVB2T	Westernstecker version 4	35689
DVB-T Receiver D80	Westernstecker version 5	36783
DVB-T Receiver DVB 600	jack 3,5 version 2	35552
DVB-T Zemex D90-2G	S-Video connector	38265
HDD Rapsody RSH 100	jack 3,5 version 3	35574
HDD Rapsody RSH 300	jack 3,5 version 3	35574
HDD Rapsody RSH 250	jack 2,5 version 3	35678
HDD ellion HMR-350H	jack 3,5 version 1	35550
HomeDock Deluxe DLO	specific connection	36044
DVD changer Zemex DVC62	jack 2,5 version 6	38505
in case of two devices	Y - junction	35551

Installation instruction for (already) factory fitted (OEM) RVC

In case the car does have already factory fitted rear view camera you need to connect the wiring to the 54-pole connector from control unit for RVC. Depending of vehicle equipment you will need one of the following article-ID's.

The control unit for RVC is located on different locations within the vehicle's. Image 1 is exemplary showing the position regarding to VW Touareg (behind the cover in the trunk on the right hand side).

Disconnect the 54-pole connector from the control unit and remove the housing of the connector as well.

For integration of the wiring (Image 2) please see scheem below:

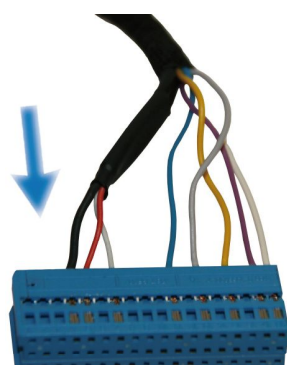| Vehicle	—	Location of the control unit for RVC
Touareg, Tiguan	—	behind the cover in the trunk on the right hand side (image 1)
Passat 3C Variant	—	behind the cover in the trunk on the right hand side

Image 1

Image 2

wiring	—	Vehicle-wiring
Red (Audio)	—	PIN 5 (if taken remove PIN)
Black (Audio)	—	PIN 4 (if taken remove PIN)
White (Audio)	—	PIN 7 (if taken remove PIN)
Blue	—	PIN 11
Gray	—	PIN 13
Yellow	—	PIN 15
Violett	—	PIN 17
White	—	PIN 18
Black/White (CAN-H)	—	PIN 40
Black/Yellow (CAN-L)	—	PIN 39
Brown (Ground)	—	PIN 44
Red	—	PIN 43

In order to achieve a proper connection we recommend adding the new wires by soldering or crimping. After connecting the wires the soldering area has to be taped properly.

Note: In case of removing PIN 4, 5 and 7 you won't be able to use the factory fitted AUX - IN Connection after installing the interface.

Note Audi RNS-E (R8): In some cases the Audio looms are not connected to the head unit. In that case the audio looms of the delivered wiring needs to connected directly to the head unit **(32-pole connector-Gray)**.
PIN 13 - Audio right
PIN 29 - Audio left
PIN 28 - Audio ground

Installation instruction RNS 510 - WITHOUT OEM RVC - High

> **NOTE:** In case the navigation unit does have a **software index higher then 522** the CAN-Gateway need to be coded to TV-Tuner. Please contact your local VW Audi dealer.

In order to identify the softwareindex please push the **„Setup" - button** of the head unit by turning on the device for about 20 seconds. Another screem will appear which is showing the softwareindex of the head unit.

- **Tiguan, Golf 5, Touran, EOS, Jetta**   -   **Address 19** - **Byte 3 - Bit 4 (Gateway Index F, K)**

  Byte 4 - Bit 7 (Gateway Index L)

- **Touareg (08), T5 (08)**   -   **Address 19** - **Byte 4 - Bit 4**
- **Passat 3C (08)**   -   **Address 19** - **Byte 3 - Bit 7**

NOTE: Is the car already equipped with factory fitted RVC you need to complete the installation by using wiring article-ID 35951.

Please remove the navigation unit using suitable tools, then disconnect the wiring harness from the navigation unit.

With the connection of 4 new wires you will complete the fitting of the interface. Please see scheme below (blue marked figures). In order to achieve a proper connection we recommend both crimping and solding the new wires.

Black/White	-	**Can High**	**Pin 9**
Black/Yellow	-	**Can Low**	**Pin 10**
Brown	-	**Ground**	**Pin 12**
Red	-	**staedy plus source specific to the vehicle**	

QUAD-LOCK
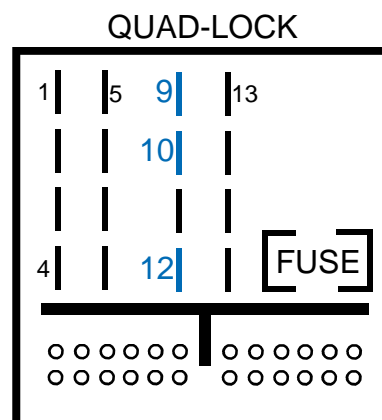
Find a suitable position for the interface within the vehicle (glove box). If everything is installed in the correct way, the navigation will show an additional „TV"-button under menu „Media". By choosing this source the navigation will display the screen of the connected DVB-T Receiver. Make sure the DVB-T Receiver is connected properly to the interface. In case of **version „Basic"** (without control) you need to install an **IR-connection** in order to control the DVB-T Receiver with the remote. The location of the DVB-T within the vehicle is up to the customer.

Installation instructions RNS-E / MFD2

NOTE: If you have the MFD2 you will need to switch off the AV source as well as the AUX source of the navigation unit **before** fitting the interface. Please do as follows:

CD ⟶ Settings ⟶ **AV - Source OFF**

⟶ **AUX - Source OFF**

NOTE: In case the vehicle (MFD2) is already equipped with factory fitted rear view camera you need to use Article-ID 35951

Please remove the navigation unit using suitable tools, then disconnect the wiring harness from the navigation unit.

With the connection of 4 new wires you will complete the fitting of the interface. Please see scheme below (blue marked figures). In order to achieve a proper connection we recommend both crimping and solding the new wires.

black/white	-	**CAN High**	**PIN 9**
black/yellow	-	**CAN Low**	**PIN 10**
brown	-	**Ground**	**PIN 12**
red	-	**Steady plus (from HW index 3.0) source specific to the vehicle**	
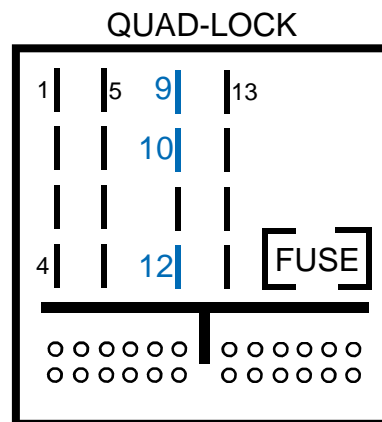
QUAD-LOCK

Find a suitable location for the interface within the vehicle (glove box).
If everything is installed in the correct way, the navigation will show an additional button under menu CD/TV. By choosing this source the navigation will display the screen of the connected multimedia device.

Make sure the multimedia device is connected properly to the interface.
In case of **version „Basic"** (without control) you need to install an **IR-connection** in order to control the multimedia device with the remote. The location of multimedia device(s) within the vehicle is up to the customer.

Note: We suggest coding the head unit (Adress 56) to TV in order to avoid fault entries.

Installation instructions RNS-D / MFD

NOTE: Not suitable for „Non-DX" Audi head units RNS-D (Version E) (A6 4B, A4 8E).

Please remove the navigation unit using suitable tools, then disconnect the wiring harness from the navigation unit.

With the connection of 4 new wires you will complete the fitting of the interface. Please see scheme below (blue marked figures). In order to achieve a proper connection we recommend both crimping and solding the new wires.

black/white	-	**CAN High**	**PIN 13**
black/yellow	-	**CAN Low**	**PIN 26**
brown	-	**Ground**	**PIN 8**
red	-	**Steady plus (from HW index 3.0) source specific to the vehicle**	
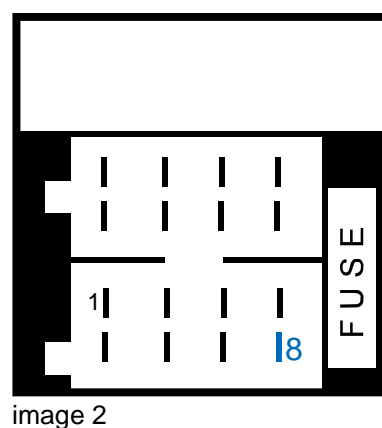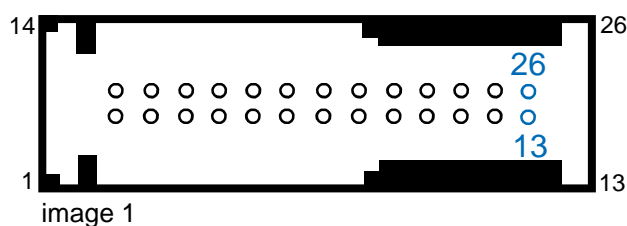
image 1

image 2

Find a suitable location for the interface within the vehicle (glove box).
If everything is installed in the correct way, the navigation will show an additional button under menu CD/TV. By choosing this source the navigation will display the screen of the connected multimedia device.

Make sure the multimedia device is connected properly to the interface.
In case of **version „Basic"** (without control) you need to install an **IR-connection** in order to control the multimedia device with the remote. The location of multimedia device(s) within the vehicle is up to the customer.

Installation instructions Comand

Please remove the navigation unit using suitable tools, then disconnect the wiring harness from the navigation unit.

With the connection of 2 new wires you will complete the fitting of the interface. Please see scheme below (blue marked figures). In order to achieve a proper connection we recommend both crimping and solding the new wires.

In case some connections have already been taken you need to disconnect these wires and put it into the identical chambers on the wiring.

brown   -   **Ground**   **PIN 8**

red   -   **Ignition plus**   **PIN 7**
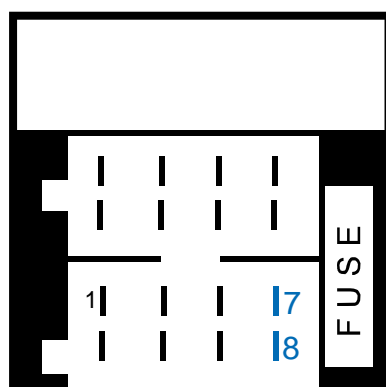
CAN High   -   **18-pole connector of the navigation - PIN 18**

CAN Low   -   **18-pole connector of the navigation - PIN 17**

Find a suitable location for the interface within the vehicle (glove box).
If everything is installed in the correct way, the navigation will show an additional button under menu CD/TV. By choosing this source the navigation will display the screen of the connected multimedia device.

Make sure the multimedia device is connected properly to the interface.
In case of **version „Basic"** (without control) you need to install an **IR-connection** in order to control the multimedia device with the remote. The location of multimedia device(s) within the vehicle is up to the customer.

Guided Setup RNS-E, RNS-D, MFD, MFD 2, RNS 2, Comand 2.0, 2.5

CON — — — **CON:** contrast adjustment (range 0 - 63)

BRI — — — **BRI**: brightness adjustment (range 0 - 63)

COL — — — **COL:** colour adjustment (range 0 - 63)

XPO — — — **XPO:** Adjustment of the horizontal image position (range 0 - 63)

RVC - - - - - - - - - - RV00   **RVC: rear view camera mode**
                        RV01   Activation **(RV01)** or Deactivation **(RV00)** of RVC mode.

1C - - - - - - - - - - 1C00   **1C: Configuration Single - or Dualcontrol**
                        1C01   **1C00:** Control of **one** device. Dual-control is deactivated. The device has to be selected
                                by menu **2C**.
                        1Cxx   In case of **two** devices please select the first device through menu **1C01** to **1Cxx.**

2C - - - - - - - - - - 2C00   **2C: Multimedia devices for Dual-control**
                        2C01   This mode allows you to select the devices under menu **2C01** to **2Cxx.**
                        2Cxx

Setup

By pushing the **„SETUP"-button** of the head unit for about **6 Seconds** you will step into the menu.
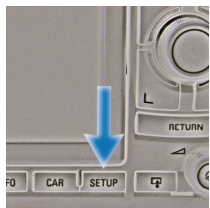
RNS-E   **MFD2/ RNS2**   **MFD**   **RNS-D**   **Command 2.0**   **Command 2.5**

Note: The Setup menu will not appear on the screen of the head unit. The configuration will only be displayed through the instrument cluster - passenger information system (if available) in case of head unit RNS-E as well as MFD2 / RNS2.

CON   Adjustment by knob (right hand side)

„SETUP"- button

BRI   Adjustment by knob (right hand side)

„SETUP"- button

COL   Adjustment by knob (right hand side)

„SETUP"- button

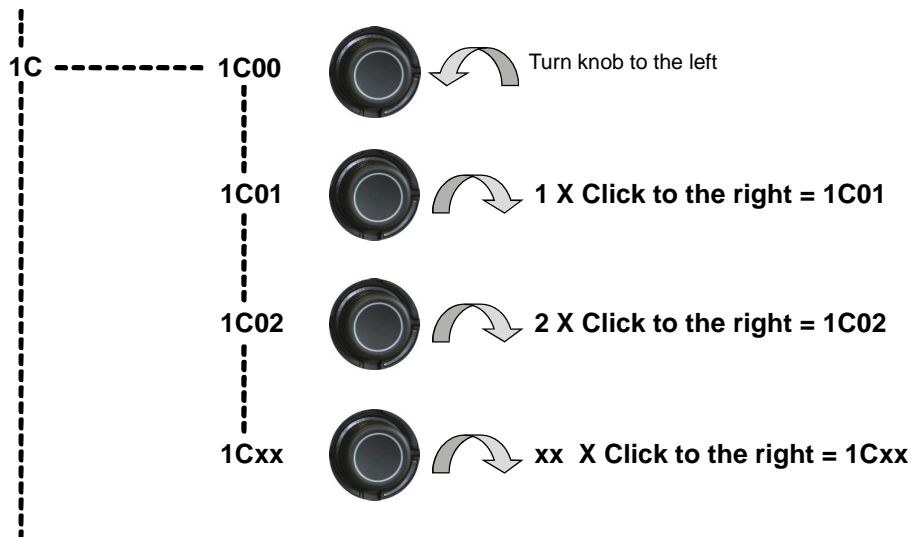**XPO**   Adjustment by knob (right hand side)

„SETUP"- button

RVC - - - - - - - - **RV00**   Turn knob to the left

                        RV01   **1 X Click to the right = RV01**

„SETUP"- button

1C - - - - - - - - 1C00   Turn knob to the left

NOTE: adjustment of **1C00** in case of only **one** device. Dual-control is deactivated. The device has to be selected by menu item **2C**. See table below

1C01   **1 X Click to the right = 1C01**

1C02   **2 X Click to the right = 1C02**

1Cxx   **xx X Click to the right = 1Cxx**

„SETUP"- button

2C - - - - - - - - 2C00   Turn knob to the left
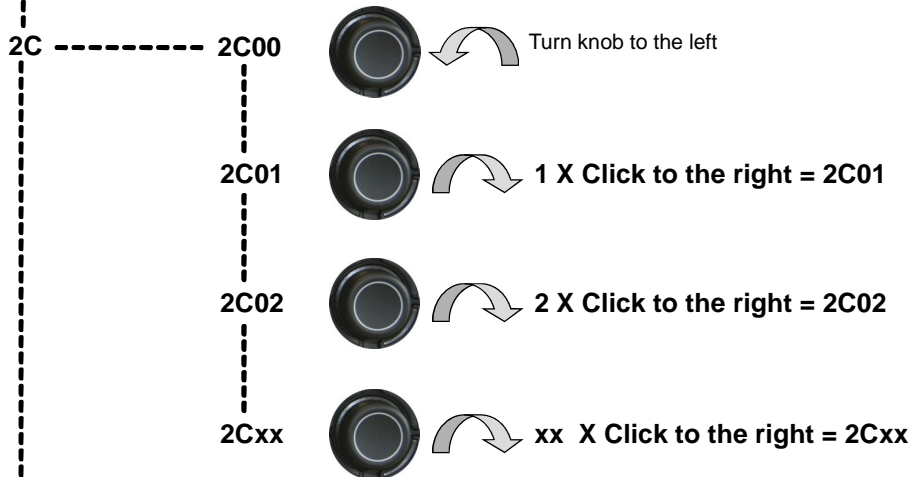
NOTE: For selscting device 2Cxx please see table below

2C01   **1 X Click to the right = 2C01**

2C02   **2 X Click to the right = 2C02**

2Cxx   **xx X Click to the right = 2Cxx**

„SETUP"- button - SETUP completed

Devices

1Cxx

1C01 - DVD Player MP410U/ Ampire DVX 100
1C02 - DVD Player AIV/ BOA 85700
1C03 - DVD Changer 6-fach DVC62
1C04 - DVD Player DVD145
1C05 - DVB-T Receiver Alpine TUE T150DV
1C06 - DVB-T Receiver Ampire 100 SL
1C07 - DVD Player Directed Video DV 2602
1C08 - DVD Player MP412U
1C09 - DVD Player Bullit CDVD12
1C10 - Video Switch
1C11 - DVB-T Alpine TUE T-252 TX (from SW 2.76)
1C12 - DVD Player Ampire DVX50/ 51 (from SW 2.89)
1C13 - HDD ellion HMR-350 (from SW 2.89)
1C14 - DVB-T Receiver DVB 600 (from SW 2.92)
1C15 - USB Player Zemex
1C16 - DVD Player Zemex MP20U

2Cxx

2C01 - DVD Player MP410U/ JD2605/ Ampire DVX100
2C02 - DVB-T Receiver Dietz 1491/ Receiver DVB2T
2C03 - DVB-T Receiver Eastern SE863-T
2C04 - DVD Player Yamakawa MP28
2C05 - DVD Player Xoro
2C06 - DVB-T 200T
2C07 - DVD Player BOSS 2500/ BV2600UA
2C08 - HDD Rapsody RSH 100
2C09 - DVD Player CKO MP83SE
2C10 - DVB-T Alpine TUE T150DV / TUE T200
2C11 - DVB-T Receiver CKO 1080/ BULLIT DVB-T
2C12 - Video Switch
2C13 - DVD Player AIV/ BOA 85700
2C14 - DVD Player MP412U
2C15 - DVD Changer Ampire DVC62
     DVD Changer Zemex DVC62 (from SW 2.98)
2C16 - DVD Changer 10-fach DVC10
2C17 - DVD Player DVD145
2C18 - Homedock deluxe/ iPod vehicledock/ iPod Video Interface Alpine KCE 425i
2C19 - DVB-T Receiver Dietz 1490 (blue housing)

2C20 - HDD Rapsody RSH 300
2C21 - DVB-T Receiver Ampire 100 SL
2C22 - DVD Player Directed Video DV 2602
2C23 - HDD Rapsody RSH 250
2C24 - customized
2C25 - DVD Changer Alpine DHA S690
2C26 - DVD Player Roadstar 3202XUS
2C27 - DVD Player Alpine DVE 5207
2C28 - DVD Player BULLIT CDVD12
2C29 - DVB-T Ampire DVBT 50/ 51/ 200/ 400 / 400 CI
2C30 - DVD Player 500U (ab SW-Stand 2.48)
2C31 - DVB-T Hirschmann CAR-TV (from SW 2.52)
2C32 - DVB-T Alpine TUE T-252 TX (from SW 2.76)
2C33 - DVB-T D80 (from SW 2.76)
2C34 - DVD Player Ampire DVX50/ 51 (from SW 2.89)
2C35 - HDD ellion HMR-350 (from SW 2.89)
2C36 - DVB-T DVB 600 (from SW 2.92)
2C37 - USB Player Zemex
2C38 - DVD Player Zemex MP20U
2C39 - USB Video Interface Alpine KCE-635UB
2C40 - DVB-T Kufatec HR-5A, 5AX/ DVB-T Ampire DVBT 52/ Ampire 55-HD/ Bullit HD 4G/ ASUKA ARA-HD
2C41 - DVB-T Zemex D90 - 2G

Operating instruction RNS-E
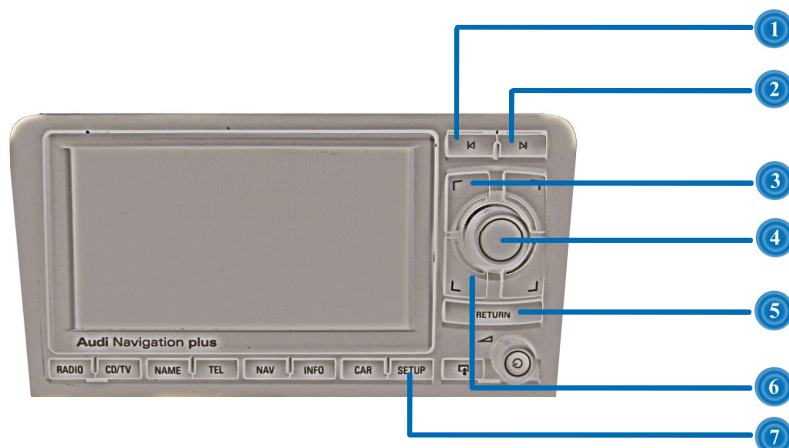
By pushing the „**SETUP"- button** (7) for about **6 seconds** of navigation unit you will come to the setup - menu of the interface. (see guided setup Multimedia Adapter).

In case of installing two devices (dual-control) you can switch the video sources by pushing the button **(3)** for about 4 seconds.

Operation DVD-Player-Changer

(1) „Track back": Track back
(1) „Track back" (4 seconds): arrow left remote
(2) „Track forward": Track forward
(2) „Track forward" (4 seconds): arrow right remote
(3) „Source" (4 seconds): source switching
(4) „Rotate controller": OK or Enter
(4) „Rotate controller (4 seconds)": On/OFF
(4) „Rotate controller fast right": fast-forward
(4) „Rotate controller fast left": rewind
(4) „Rotate controller left": arrow upwards remote
(4) „Rotate controller right": arrow downwards remote
(5) „Return": Play / Break
(6) DVD - menu
(6) Button 4 seconds: USB-button remote
(6) Disc-button DVD-Changer
(7) „Setup": Setup DVD - Player
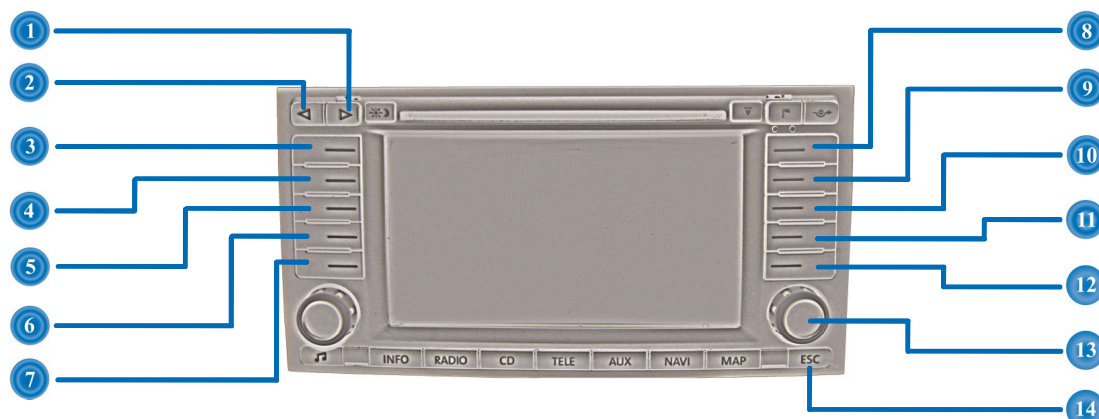**(7) „Setup" (4 seconds):** Setup Multimedia Adapter

Operation DVB-T Receiver

(1) „Track back": sound down
(2) „Track forward": sound louder
(3) Info button of the remote
(3) „Source" (4 seconds): source switching
(4) „Rotate controller": OK or Enter
(4) „Rotate controller left": channel upwards
(4) „Rotate controller right": channel downwards
(4) „Rotate controller" (4 seconds): ON/ OFF DVB-T
(5) „Return": Exit
(5) „Return": For Ampire DVB-T 400 2G („Home" button)
(6) EPG button remote
(7) „Setup": menu DVB-T Receiver (Setup)
(7) „Setup" (4 seconds): Setup Multimedia Adapter

Operation HDD-Player

(1) „Track back": Track back
(1) „Track back" (4 seconds): rewind
(2) „Track forward": Track forward
(2) „Track forward" (4 seconds): fast-forward
(3) Bookmark
(4) „Rotate controller": OK or Enter
(4) „Rotate controller right": arrow downwards remote
(4) „Rotate controller left": arrow upwards remote
(5) „Return": Stop / Exit
(6) Menu
(7) „Setup": Setup HDD - Player
(7) „Setup" (4 seconds): Setup Multimedia Adapter

Operating instruction MFD 2

By pushing the „**SETUP"- button** (7) for about **6 seconds** of navigation unit you will come to the setup - menu of the interface. (see guided setup Multimedia Adapter).

In case of installing two devices (dual-control) you can switch the video sources by pushing the button **(5)** for about 4 seconds.

Operation DVD-Player-Changer

(1) „Track forward": Track forward
(1) „Track forward (4 seconds)": arrow left remote (Changer)
(2) „Track back": Track back
(2) „Track back (4 seconds)": arrow right remote (Changer)
(3)   Arrow left remote
(4)   Rewind
(5) „Source" (4 seconds): source switching
(6)   USB - button
(7) „Setup": Setup DVD - Player
(7) „Setup" (4 seconds): Setup Multimedia Adapter
(8)   Arrow right remote
(9)   Fast-forward
(10)   DVD - menu
(10)   Disc-button DVD-Changer
(11)   Eject - button
(12)   ON/ OFF DVD-Player
(13) „Rotate controller": OK oder Enter
(13) „Rotate controller (4 seconds): On/OFF DVD-Changer
(13) „Rotate controller left": arrow upwards remote
(13) „Rotate controller right": arrow downwards remote
(14)   Return/Exit
(14)   „ESC": Play / Break (Changer)

notice specific to vehicle

Volkswagen Golf V
Buttons of multi steering wheel (CD/TV mode has to be activated):
Arrow upwards: Track forward
Arrow downwards: Track back
OK-button: OK or Enter
Mute-button: mute (always available)

Operation DVB-T Receiver

(1) „Track back": sound down
(2) „Track forward": sound louder
(3)   Info button remote
(4)   arrow left remote
(5) „Source" (4 seconds): source switching
(6)   EPG button remote
(7) „Setup": menu DVB-T Receiver (Setup)
(9)   arrow right remote
(12) ON/ OFF DVB-T
(13) „Rotate controller": OK or Enter
(13) „Rotate controller left": channel upwards
(13) „Rotate controller right": channel downwards
(14) „ESC": Return

Operation HDD-Player

(1) „Track forward": Track forward
(2) „Track back": Track back
(3)   Step left
(3)   Push for 4 seconds: rewind
(4)   Step upwards
(7)   Setup: Setup HDD - Player
(8)   Step right
(8)   Push for 4 seconds: fast-forward
(8)   Step downwards
(12)   ON/ OFF HDD
(13) „Rotate controller": OK or Enter
(13) „Rotate controller right": downwards
(13) „Rotate controller left": upwards
(14)   Stop / Exit

Operating instruction MFD

By pushing the „**SCAN**"- button (4) for about **6 seconds** of navigation unit you will come to the setup - menu of the interface.

Operation DVD-Player-Changer

(1) „Track forward": Track forward
(1) „Track forward" (4 seconds): fast-forward
(1) „Track forward (4 seconds): arrow left remote (Changer)
(2) „Track back": Track back
(2) „Track back" (4 seconds): rewind
(2) „Track back" (4 seconds): arrow right remote (Changer)
(3) „AS"(4 seconds): source switching
(4) „Scan": Setup DVD - Player
(4) „Scan"(4 seconds): Setup Multimedia Adapter
(5) „1-button": arrow left remote
(6) „2-button": DVD menu
(6) „2-button": Disc-button DVD-Changer
(7) „3-button": USB-button remote
(8) „Return": play / break
(9) „Rotate controller": OK or Enter
(9) „Rotate controller right": arrow downwards remote
(9) „Rotate controller left": arrow upwards remote
(10) „4-button": arrow right remote
(11) „5-button": Random-Funktion
(12) „6-button": ON/ OFF

Operation DVB-T Receiver

(1) „Track forward": channal upwards
(1) „Track forward" (4 seconds): arrow right remote
(2) „Track back": channal downwards
(2) „Track zurück" (4 seconds): arrow left remote
(3) „AS": INFO remote
(4) „Scan": Setup DVB-T Receiver
(4) „Scan"(4 seconds): Setup Multimedia Adapter
(5) „1-button": sound down
(6) „2-button": EPG
(7) „3-button": Auto scan
(8) „Return": Back
(9) „Rotate controller": OK or Enter
(9) „Rotate controller right": arrow downwards remote
(9) „Rotate controller left": arrow upwards remote
(10) „4-button": sound louder
(11) „5-button": source switching
(12) „6-button": DVB-T Receiver ON/ OFF

By pushing the „**MODE**"- button (8) for about **6 seconds** of navigation unit you will come to the setup - menu of the interface.
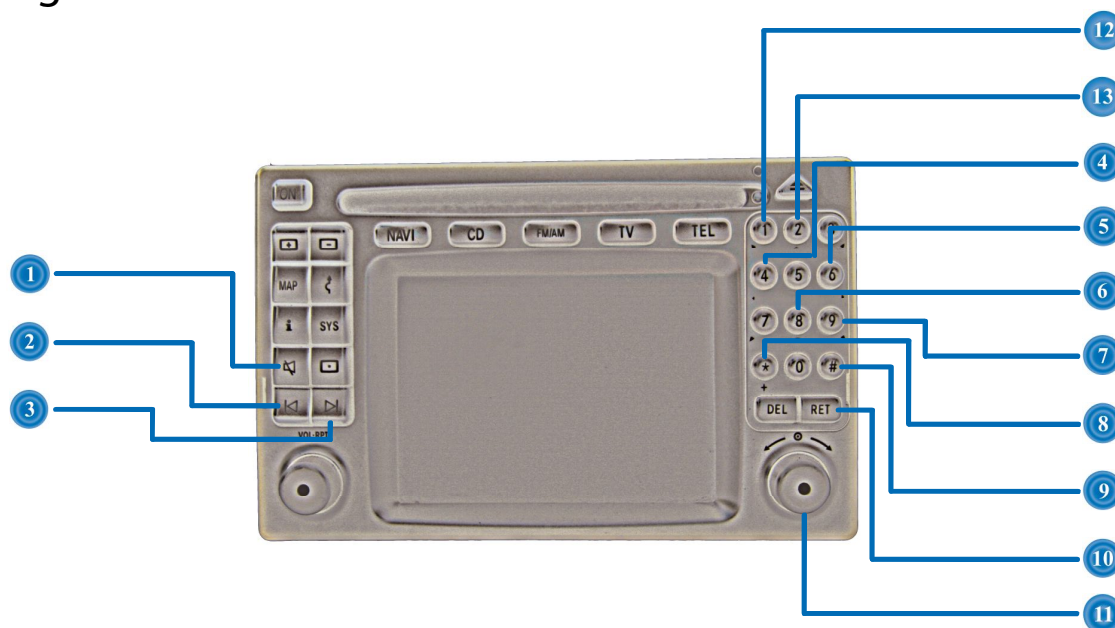
Operation DVD-Player-Changer

(1) „Track forward": Track forward
(1) „Track forward (4 seconds): arrow right remote (Changer)
(2) „arrow upwards": fast-forward
(2) „arrow upwards (4 seconds): rewind (Changer)
(3) „Track back": Track back
(3) „Track back (4 seconds)": arrow left remote (Changer)
(4) „Arrow downwards": rewind
(4) „Arrow downwards (4 seconds)": fast-forward (Changer)
(5) „AS": USB-button remote
(5) „AS" (4 seconds): source switching
(6) „Plus": arrow right remote
(7) „Minus": arrow left remote
(8) „Mode": Setup DVD-Player
(8) „Mode" (4 seconds): Setup Multimedia Adapter
(9) „Rotate controller": OK/ Enter
(9) „Rotate controller" (4 seconds): ON/ OFF
(9) „Rotate controller left": arrow upwards remote
(9) „Rotate controller right": arrow downwards remote
(10) „Return": play / break

Operation DVB-T Receiver

(1) „Track forward": channal upwards
(2) „arrow upwards": arrow right remote
(3) „Track back": channal downwards
(4) „arrow downwards": arrow left remote
(6) „Plus": sound louder
(7) „Minus": sound down
(9) „Rotate controller" (4 seconds): ON/ OFF DVB-T
(9) „Rotate controller": OK or ENTER
(9) „Rotate controller left": arrow upwards remote
(9) „Rotate controller right": arrow downwards remote
(10) „Return": Back/Exit
(10) „Return" (4 seconds): source switching

Operating instruction Comand

By pushing the „#"- button (9) for about **6 seconds** of navigation unit you will come to the setup - menu of the interface.
(see guided setup Multimedia Adapter).
In case of installing two devices (dual-control) you can switch the video sources by pushing the „9-button" **(7)** for about 4 seconds.
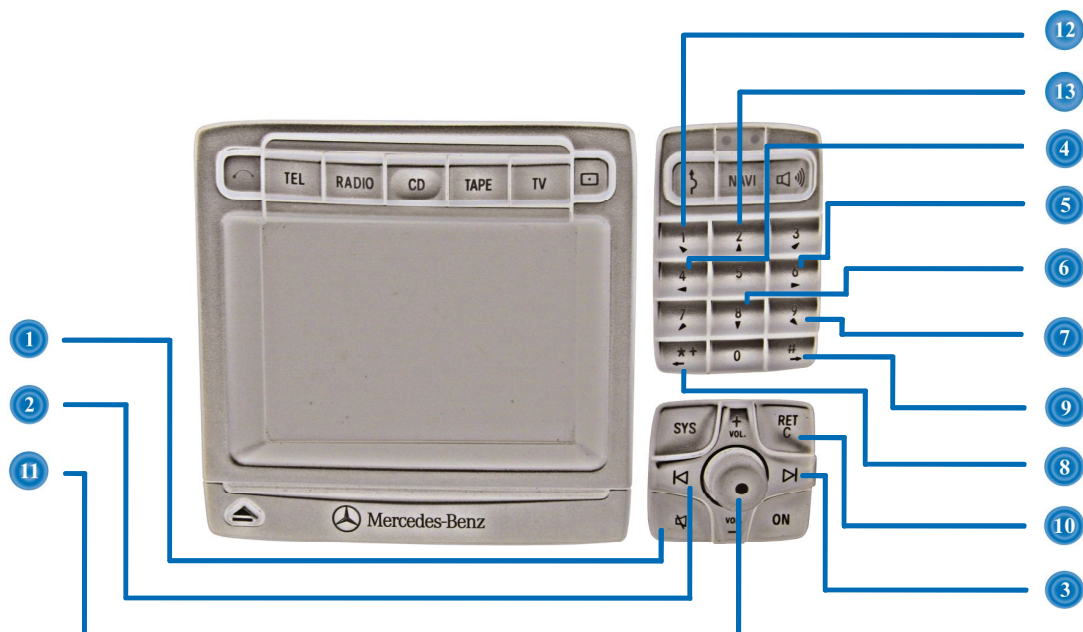
Operation DVD-Player-Changer

(1) „Mute button": Mute
(2) „Track back": Track back
(2) „Track back (4 seconds)": arrow left remote (Changer)
(3) „Track forward": Track forward
(3) „Track forward (4 seconds)": arrow right remote (Changer)
(4) „4-button": arrow left remote
(5) „6-button": arrow right remote
(6) „8-button": DVD menu
(6) „8-button": Disc-button DVD-Changer
(7) „9-button": source switching
(8) „Star-button": ON/ OFF
(9) „#-button": Setup DVD - Player
(9) „#-button (4 seconds)": Setup Multimedia Adapter
(10) „Ret": Return/Exit remote
(10) „Ret": Play / Break (Changer)
(11) „Rotate controller": OK or Enter
(11) „Rotate controller right": arrow downwards remote
(11) „Rotate controller left": arrow upwards remote
(12) „1-button": USB-button remote
(13) „2-button": Random

Operation DVB-T Receiver

(1) „Mute button": Mute
(2) „Track back": channel back
(2) „Track back (4 seconds)": arrow left remote
(3) „Track forward": channel forward
(3) „Track forward (4 seconds)": arrow right remote
(4) „4-button": sound down
(5) „6-button": sound louder
(6) „8-button": EPG
(7) „9-button": Info
(8) „Star -button": ON/ OFF DVB-T Receiver
(9) „#-button": Setup DVB-T Receiver
(9) „#-button (4 seconds)": Setup Mutimedia Adapter
(10) „Return/Exit remote"
(11) „Rotate controller": OK or Enter
(11) „Rotate controller right": arrow downwards remote
(11) „Rotate controller left": arrow upwards remote
(12) „1-button": Auto scan
(13) „2-button": source switching

Operating instruction Comand

By pushing the „#"- button (9) for about **6 seconds** of navigation unit you will come to the setup - menu of the interface.
(see guided setup Multimedia Adapter).
In case of installing two devices (dual-control) you can switch the video sources by pushing the „9-button" **(7)** for about 4 seconds.

Operation DVD-Player-Changer

(1) „Mute button": Mute
(2) „Track back": Track back
(2) „Track back (4 seconds)": arrow left remote (Changer)
(3) „Track forward": Track forward
(3) „Track forward (4 seconds)": arrow right remote (Changer)
(4) „4-button": arrow left remote
(5) „6-button": arrow right remote
(6) „8-button": DVD menu
(6) „8-button": Disc-button DVD-Changer
(7) „9-button": source switching
(8) „Star-button": ON/ OFF
(9) „#-button": Setup DVD - Player
(9) „#-button (4 seconds)": Setup Multimedia Adapter
(10) „Ret": Return/Exit remote
(10) „Ret": Play / Break (Changer)
(11) „Rotate controller": OK or Enter
(11) „Rotate controller right": arrow downwards remote
(11) „Rotate controller left": arrow upwards remote
(12) „1-button": USB-button remote
(13) „2-button": Random

Operation DVB-T Receiver

(1) „Mute button": Mute
(2) „Track back": channel back
(2) „Track back (4 seconds)": arrow left remote
(3) „Track forward": channel forward
(3) „Track forward (4 seconds)": arrow right remote
(4) „4-button": sound down
(5) „6-button": sound louder
(6) „8-button": EPG
(7) „9-button": Info
(8) „Star -button": ON/ OFF DVB-T Receiver
(9) „#-button": Setup DVB-T Receiver
(9) „#-button (4 seconds)": Setup Mutimedia Adapter
(10) „Return/Exit remote"
(11) „Rotate controller": OK or Enter
(11) „Rotate controller right": arrow downwards remote
(11) „Rotate controller left": arrow upwards remote
(12) „1-button": Auto scan
(13) „2-button": source switching

Guided setup RNS 510

By entering the key sequence „**Extras**"---"**V-Text**"---"**Zoom**" you will come to the setup. By pushing the „**Back**" button (image 2) as well as touching the screen again you will reach image 3. Now you are in the first setting (Contrast). By using the rotate-controller as well as the „arrow left, right" button you have got the possibility for individual set up. In order to reach the next setting you need to enter the key sequence „**Extras**"---"**V-Text**"---"**Zoom**"---"**Zurück**" again. Please see menu structure below.

In order to leave the setup please enter „**Extras**"---"**EPG**".

In order to complete the „**Fast-Setup**" you need to use the „**Arrow up, down**" buttons (Image 2) just after entering the „**Zoom**" button. By entering the „Zoom" button again you will reach the next setting (step by step). With this procedure you will complete the setup without the display of image 3.
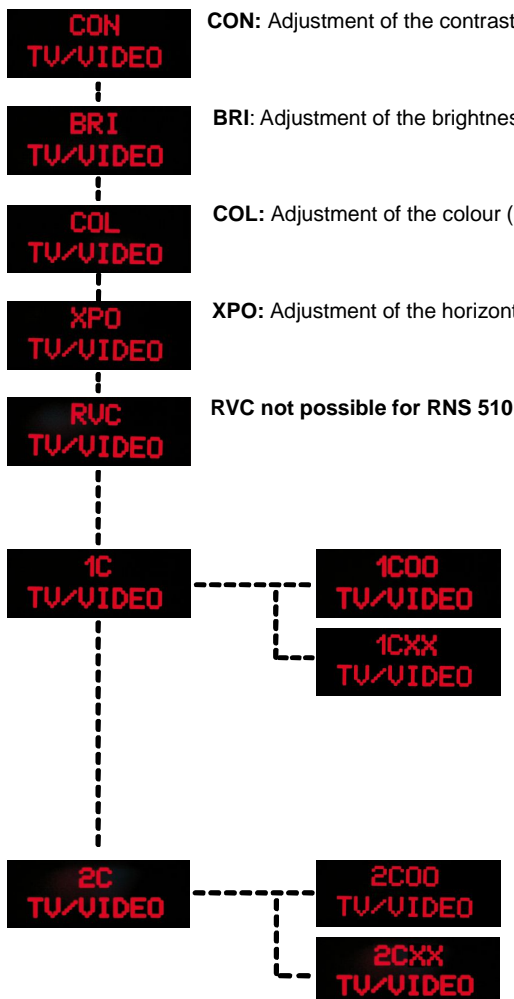

Image 1

Image 2

Image 3

Menu

CON: Adjustment of the contrast (range 0 - 63)

BRI: Adjustment of the brightness (range 0 - 63)

COL: Adjustment of the colour (range 0 - 63)

XPO: Adjustment of the horizontal image position (range 0 - 63)

RVC not possible for RNS 510

1C: Configuration Single - or Dualcontrol

1C00: Control of **one** device. Dual-control is deactivated. The device has to be selected by menu item **2C**.

In case of **two** devices you can choose between devices below for the **first** device in the circute. Choose the device under menu item **1C01** to **1Cxx**.

1C01 - DVD Player MP410U/ Ampire DVX 100	1C07 - DVD Player Directed Video DV 2602
1C02 - DVD Player AIV/ BOA 85700	1C08 - DVD Player MP412U
1C03 - not available	1C09 - not available
1C04 - DVD Player DVD145	1C10 - not available
1C05 - DVB-T Receiver Alpine TUE T150DV	1C11 - DVB-T Alpine TUE T-252 TX (ab SW 2.76)
1C06 - DVB-T Receiver Ampire 100 SL	1C14 - DVB-T Receiver DVB 600 (from SW 2.92)

2C: Selection DVB-T Receiver

This mode allows you to select between different devices, which you can control by OEM head unit. Select the devices under menu item **2C01** to **2Cxx.**

2C01 - DVD Player MP410U/ Ampire DVX 100 / JD2605 (from SW-Stand 2.77)	2C17 - DVD Player DVD 145 (from SW-2.77)
2C02 - DVB-T Receiver Dietz 1491	2C18 - Homedock deluxe/ iPod vehicledock/ iPod Video Interface Alpine KCE 425i (SW 2.80)
2C03 - DVB-T Eastern SE863-T (from SW 2.47)	2C19 - not available
2C04 - not available	2C20 - HDD Rapsody RSH 300
2C05 - not available	2C21 - DVB-T Receiver Ampire 100 SL
2C06 - not available	2C22 - DVD Player Directed DV 2602 (from SW-2.77)
2C07 - not available	2C23 - HDD Rapsody RSH 250
2C08 - HDD Rapsody RSH 100	2C24 - not available
2C09 - not available	2C25 - DVD Changer Alpine DHA S690 (from SW 2.77)
2C10 - DVB-T Receiver Alpine TUE T150DV	2C26 - DVD Player Roadstar 3202XUS (from SW-2.77)
2C11 - DVB-T Receiver CKO 1080/ BULLIT DVB-T	2C27 - DVD Player Alpine DVE 5207 (from SW-2.77)
2C12 - not available	2C28 - not available
2C13 - DVD Player AIV/ BOA 85700 (from SW-2.77)	2C29 - DVB-T Receiver Ampire DVBT200
2C14 - DVD Player MP412U (from SW-2.77)	2C30 - DVD Player 500U (from SW-Stand 2.77)
2C15 - not available	2C31 - DVB-T Hirschmann CAR-TV (from SW 2.52)
2C16 - not available	2C32 - DVB-T Alpine TUE T-252 TX (from SW 2.76)
	2C33 - DVB-T D80 (from SW 2.76)
	2C36 - DVB-T Receiver DVB 600 (from SW 2.92)

Operating instruction RNS 510

Video mode

In order to choose the video-mode please enter the key sequence „**Media**"---"**Video**".
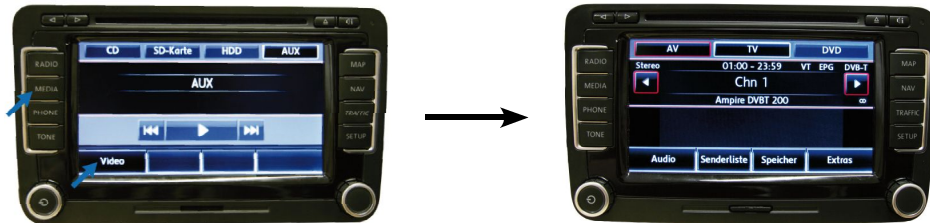

Channel list/ additional features

For choosing a channel (DVB-T) enter the button „**Senderliste**". You can choose between 65 channels (depends on the DVB-T Receiver).

Furthermore you can choose the following remote options regarding to the devices:

80 - Power - ON/ OFF
80 - Radio/ TV - Switching between TV-mode and digital radio (only available in specific regions)
80 - Search - Channel scanning
80 - Video Input - Choosing video-input AV1/ AV2
80 - Setup - Menu- button remote
90 - Down - Arrow downwards- button remote
90 - Exit - Exit- button remote
90 - Left - Arrow left- button remote
90 - OK - OK- button remote
90 - Right - Arrow right- button remote
90 - Up - Pfeil-Taste oben FB
90 - Next - Next track
**90 - Previous -** Previous track
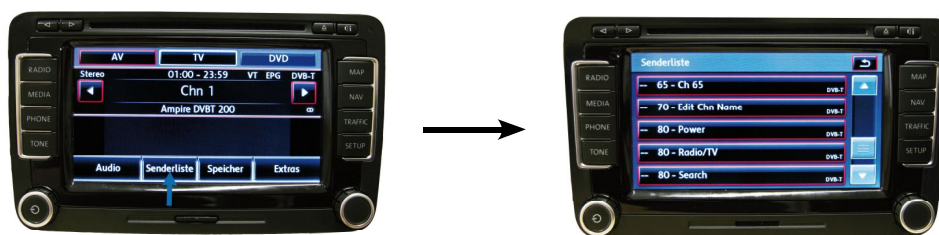
AV- Inputs

In order to choose the video-inputs AV1/ AV2 you need to enter the key sequence „**Senderliste**"---„**Video Input**". Before you need to activate the video-inputs through the menu „**Setup - Medien**".

Operating instruction RNS 510

Video-Text

In order to select the video-text you need to enter the key sequence **„Extras"---"V-Text"---"Seite".** Enter the figures and confirm with the **„OK"** button.
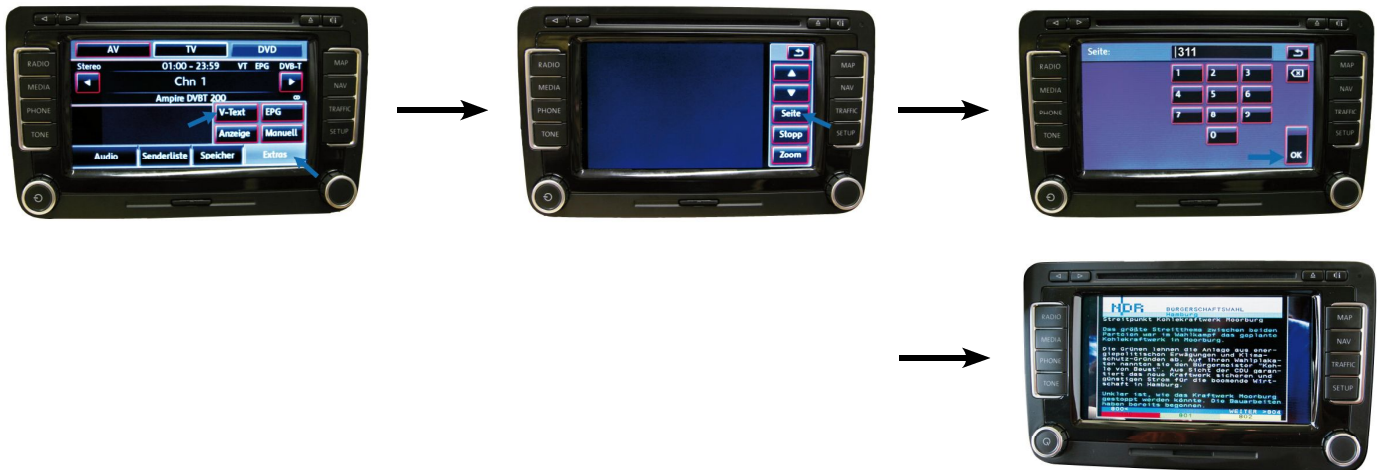
EPG-Electronic Program Guide

In order to select the EPG you need to enter the key sequence **„Extras"---"EPG"---"Auswahl".**

Operating instruction RNS 510

Operation by stalk

By pushing the upper part of the multifunctional stalk about 4 seconds you will reach the main menu of the driver information system. Please choose the menu „**Audio**" and confirm by pushing the button underneath the stalk.

Now you can switch between the Channels by using the up and down button of the multifunctional stalk.
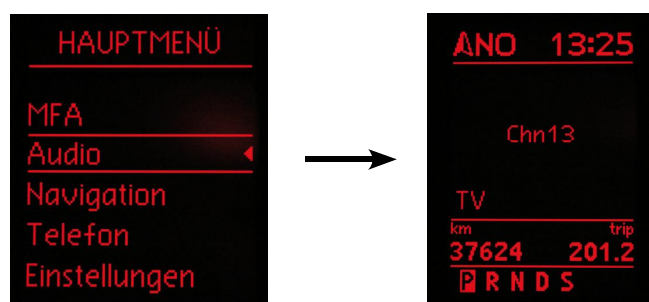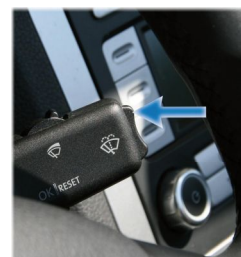
Note: Please switch the channels in a steady pace. Fast channel switching could cause time delays during channel display.